Subject Index to Volumes 35–40, 1990

Adaptive Grid Generator, Grid Cell Volume Control with an, 35:209
Algorithmic Models, Comparison Theorems for, 40:179
Approximation Theory, An Application of, to the Numerical Solution of a Fredholm Equation with a Mild Singularity, 37:57
Asymptotics, A Numerical Evaluation of Very Oscillatory Infinite Integrals by, 40:117
Automatic Evaluation of Derivatives, An ADA Library for 35:103

Banach Spaces, Generalized, The Secant Method in, 39:111
Biochemical Chiral Selection in the Presence of Instabilities, Chaos, and Noise, 38:1
Bounding Zeros of Analytic Functions, A Ball Newton Point Algorithm for, 36:1

Cahn-Hilliard Model of Solidification, Computation on the, 40:55
Capacitated Facility Location Problems, Large Scale, Approximate Solutions to, 39:159
Constrained Global Optimization, The Filled Function Transformations for, 39:1
Cost Allocation: The Traveling Salesman, Binpacking, and the Knapsack, 35:191
Convolution Integral and Fredholm Integral Equations via Double Fourier Series, Solutions of, 40:215
Cubic Spline Interpolation, End Conditions for, 40:105

Damped Wave Equation with a Smoothing Property, Error Estimates for the Semidiscrete Finite-Element Approximation of a, 35:243
Difference Equations of Volterra Type, Stability Results for, 36:51
Difference Equations, Sharp Conditions for Existence of Nontrivial Invariant Cones of Nonnegative Initial Values of, 36:89
Differential Equations, The Boundary-Condition Paradox: A Limit to the Universality of, 37:67
Diffusion Equation, Two-Dimensional, A Comparison of Vectorized Methods for Solving the, 40:77
Dynamic Oligopoly: Models with Incomplete Information, 38:161

Efficient Population Behavior, General Representation Theorems for, 36:173
Epidemics, Cellular Automation Modeling of, 40:41
Eutrophication, Optimal Policies in a Nonlinear Bioeconomic Model of, 35:95
Experimental Data, Sensitivity Analysis using New Coefficients for, 37:9

Filtering Theory, On the Stochastic Differential Equations of, 37:185
Fourth-Order Nonlinear Boundary-Value Problem and an Integral-Type Sign Condition, 35:231
Function, Modular Parts of a, 36:63
Fusion Reactors, Variational Analysis of a Plasma-Arc Armature inside a Railgun Solid-Hydrogen-Pellet Accelerator for Fueling, 37:37

Global Optimization, The Globally Convexized Filled Functions for, 35:131
Graphing Implicit Functions $f(x, y) = 0$, 39:199
Grid Generation with Line-Spacing Control, A Multigrid Method for, 40:125

Hierarchical Power, Algorithms for, 39:21
Hydrology, Random Evolution Equations in, 38:201

Implicit Equations in Two Variables, A Neighborhood Magnification Method for Solving, 37:97
Integral Equations, Fredholm and Singular, The Conditioning of Some Projection Methods for, 40:165
Integral Equations, Linear Singular, On Approximation Solution of, 36:147
Interval Newton Method: Hansen-Greenberg Approach—Some Procedural Improvements, 35:263
Irrational Definite Integrals, Applications of Complex Variable Residue Theory to the Evaluation Solution of, 39:145, 177
Irrational Definite Sine Integrals, Evaluation Using Residue Theory, 36:163

Jordan Invariant Subspaces via Algebraic Generalized Inverse, 38:75

Linear Programming and Simple Associative Memories, 40:203
Lipid Membrane, An Application of Cellular Automata to Model a, 39:49

Manifold Subbotin Spline, 40:225
Market Dynamics Based on the Internal Model Principle, a Possible Interpretation of, 37:1
Markov-Renewal Extension of a Deterministic State-Variable Model of the Transport and Fate of a Toxic Chemical in the Environment, 35:219
Matrix Formulation, Solution of Maxwell's Equations by, 40:239
Measles Epidemic, A Mathematical Analysis and Simulation of a Localized, 39:61
Multigrid F-Cycle, On the, 37:19
Multigrid Stokes Solver, Analysis of a, 35:291

Nested Cylindrical Domain: The Continuous Solution, Observability of the Electropotential on a, 39:207
Nested Cylindrical Domain: Numerical Solution, Observability of the Electropotential on a, 39:245
Nonequidistant Engquist-Osher Scheme, Some Improvements of the, 40:147
Nonlinear Equations, Finding More and More Solutions of a System of, 36:15
Nonlinear Impulsive Integrodifferential Equations, Boundary Value Problems for, 36:31
Nonlinear Klein-Gordon Equation, Analysis of Four Numerical Schemes for a, 35:61
Nonlinear Periodic Boundary Value Problems, Extremal Solutions of Second Order, 40:135
Nonlinear Problems, Continuous Finite Element Methods Which Preserve Energy Properties for, 39:271
Nonlinearly Constrained Discrete-Time Optimal-Control Problems, 38:227
Nuclear Medicine, The Optical Principles of Coincidence Counting in, 40:1
Nuclear-Medicine Tomography, Organ Characterization with, 35:159

$O(n^2)$ Shortest Chain Algorithm, A New, 37:111

Parallel Computers, A Note on Reducing Communication Costs in Explicit Time Stepping Methods on, 39:191
Periodic Volterra Representation, Fast Error-Free Algorithm for the Determination of Kernels of the, 38:87
Perturbation Problems, Singular, A Numerical Integration Method for Solving, 37:83
Perturbation Problems, Singular, Numerical Techniques for a Class of, 35:1
Piecewise Linear Transformations, Invariant Measures for, 39:123
Point-to-Set Maps, On the Convergence of Nonstationary Algorithms Modeled by, 39:107
Polynomial Coefficients, Sums of Exponentials with, 40:33
Population Dynamics Control in Regard to Minimizing the Time Necessary for the Regeneration of a Biomass Taken Away from the Population, 39:37
Porous Media, The Steady Motion of an Incompressible Dusty Gas in, 37:149
Prime Number Grid Scheme to Approximate Function Spaces with Their Low Dimensional Subspaces, 40:233
Projector Preconditioning and Domain Decomposition Methods, 37:75

Rational and Deficient Systems, The Continuation Method for, 37:121

Semimartingale Stochastic Differential Equations, Optimal Nonparametric Estimation for Some, 37:169
Simultaneous-Equations, Weighted Regression, and Noise-in-Variables Models, A Comparison of, 40:187
Slope Arithmetic, On Interval Enclosures Using, 39:89
Spatial Resolution, A New Phenomenon in Medical Imaging: Effects of Radiation Coherence on, 40:11
Spatially Distributed Stocks, Deterministic Evolution, and Ecological Balance, 36:113
Stability of the Biomass—Carbon Dioxide Equilibrium in the Atmosphere: Mathematical Model, 35:125
Stochastic Bifurcation, 38:101
Stochastic Calculus as a Tool in Survival Analysis: A Review, 38:23
Stochastic Differential Equations in Finance, 37:131
Stochastic Differential Equations in Mathematical Demography: A Review, 38:7

Stochastic Neuronal Models, Inference for, 38:51
Stokes Problem: An Accelerations-Pressure Formulation, A Mixed Finite Element Method for the, 36:135

Two-Point Boundary-Value Problems, A Non-iterative Transformation Method Applied to, 39:79
Two-Point Boundary-Value Problems, On Dichotomy and Well-Conditioning in, 38:179

Unconstrained Global Optimization Using Strict Complementary Slackness, 36:75

Vector Function, A Computational Method for Finding All the Roots of a, 35:13
Voigt Function, An Algorithm for the Numerical Computation of the, 35:277